

CLAIMS

1. A method for adding a diskless host computer to a storage-area network having a data storage system on which are stored a plurality of configurations, comprising:

physically connecting the diskless host computer to the network;

receiving an identifier transmitted by the diskless host computer via the network;

looking up a configuration corresponding to the received identifier, each configuration including an operating system different from the operating system of all other configurations of the plurality of configurations;

providing the host access to a storage device on which the operating system is stored; and

the host booting from the operating system stored on the storage device.

2. The method claimed in claim 1, further comprising the step of, prior to the step of providing the host access to a storage device, copying the operating system to the storage device from another device of the storage system.

3. The method claimed in claim 1, wherein the step of receiving an identifier comprises a Fibre Channel switch receiving a World Wide Name (WWN) from the host in accordance with a Fibre Channel log-in protocol.

4. The method claimed in claim 3, wherein the step of looking up a configuration comprises:

a control station computer querying the Fibre Channel switch for the WWN; and

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the control station looking up the configuration in a database in response to the WWN, each WWN having a corresponding configuration.

5. The method claimed in claim 4, wherein the control station queries the Fibre Channel switch in response to a notification received from the host via an Internet Protocol (IP) network.
6. The method claimed in claim 5, wherein the host connects to the IP network using a DHCP protocol.
7. The method claimed in claim 1, wherein the step of providing the host access to the storage device comprises establishing a connection through a switch.
8. The method claimed in claim 7, wherein the switch is a Fibre Channel switch.
9. The method claimed in claim 8, wherein the step of receiving an identifier comprises a Fibre Channel switch receiving a World Wide Name (WWN) from the host in accordance with a Fibre Channel log-in protocol.
10. The method claimed in claim 9, wherein the step of looking up a configuration comprises:
 - a control station computer querying the Fibre Channel switch for the WWN in response to a notification received from the host via an Internet Protocol (IP) network; and
 - the control station looking up the configuration in a database in response to the WWN, each WWN having a corresponding configuration.

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11. The method claimed in claim 10, wherein the database uses the lightweight directory access protocol (LDAP).
 12. A network system, comprising:
 - at least one diskless host computer;
 - a storage system on which are stored a plurality of host configurations, each configuration including an operating system different from the operating system of all other configurations of the plurality of configurations;
 - a switch coupled to each host computer and having a plurality of ports, each port coupled to the storage system; and
 - a control station computer monitoring for receipt of an identifier transmitted by the diskless host computer to the switch, looking up a configuration corresponding to the received identifier, and directing the switch to provide the host access to a storage device on which the operating system is stored.
 13. The system claimed in claim 12, wherein the storage system copies the operating system to the storage device from another device of the storage system.
 14. The system claimed in claim 12, wherein the identifier is a World Wide Name (WWN) received from the host in accordance with a Fibre Channel log-in protocol, and wherein each WWN corresponds to a configuration.
 15. The system claimed in claim 14, wherein the a control station computer queries the Fibre Channel switch for the WWN and looks up the configuration in a database in response to the WWN.
 16. The system claimed in claim 12, wherein the control station computer looks up

the configuration in a database operating under the lightweight directory access protocol (LDAP).

17. A computer program product for adding a diskless host computer to storage-area network having a data storage system on which are stored a plurality of configurations, the computer program product comprising a computer-readable data medium carrying thereon:

identification means for receiving an identifier transmitted by the diskless host computer via the network in response to physical connection of the diskless host computer to the network;

lookup means for looking up a configuration corresponding to the received identifier, each configuration including an operating system different from the operating system of all other configurations of the plurality of configurations; and

connection means for controlling establishment of a connection path between the host and a storage device on which the operating system is stored.

18. The computer program product claimed in claim 17, further comprising copying means for copying the operating system to the storage device from another device of the storage system.

19. The computer program product claimed in claim 19, wherein the identification means comprises means for receiving a Fibre Channel World Wide Name (WWN) from the host in accordance with a Fibre Channel log-in protocol.

20. The computer program product claimed in claim 17, wherein:
the identification means comprises means for querying a Fibre Channel switch for the WWN; and

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the lookup means comprises means for looking up the configuration in a database in response to the WWN, each WWN having a corresponding configuration.

21. The computer program product claimed in claim 20, wherein the identification means comprises means for querying the Fibre Channel switch in response to a notification received from the host via an Internet Protocol (IP) network.